

Terrada describes forming an EL device portion 34, which the Examiner equates to the recited light emitting element, at one surface 61 of the main substrate 33. See col. 15, lines 40-51. As acknowledged by the Examiner, the EL device portion 34, however, does not include red, green, and blue light emitting elements that *emit red, green, and blue light* and are adjacent to red, green, and blue filters bonded at a back surface of the main substrate 33, respectively. Rather, the EL device portion 34 includes a light emission layer 43 that *emits white light* and that is adjacent to red, blue, and green filters 47 to 49 bonded at the back surface of the main substrate 33. See col. 16, lines 48-60. Bando does not remedy this deficiency of Terrada.

The Examiner refers to Yoneda as disclosing the missing feature of forming red, green, and blue light emitting elements that emit red, green, and blue light, respectively. In particular, the Examiner states:

Further, Yoneda teaches that it is conventional in an electroluminescent (EL) display to provide a red light-emitting device, a green light-emitting device and a blue light-emitting device (Fig. 1; column 1, lines 53-61). The fact that Yoneda teaches this conventional device as a non-preferred embodiment including a white light does not mean that it would not have been obvious to use the EL display comprising separate red, green, and blue light emitting devices, since it is known to be conventional in the art and therefore would require no further development time or resources (see MPEP 2123).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use the method taught by Terrada and Bando together, and further substitute a red light-emitting device, a green light-emitting device, and a blue light-emitting device adjacent to each of Terrada's red, green, and blue color filters, respectively, for the light-emitting device taught by Terrada, since Yoneda teaches that it is conventional in the semiconductor art of manufacturing EL displays to form each of a red, green, and blue light-emitting device, and Terrada teaches forming color filters adjacent to light-emitting devices.

Page 3 of Final Office Action. As discussed in the interview, Yoneda, as shown in Fig. 1, teaches that it is conventional to use red, green, and blue luminous layers 34 without a color filter in an EL display apparatus to generate a full color display. Yoneda describes this conventional structure as having a problem in that the manufacturing of the red, green, and blue luminous layers 34 undesirably complicates the manufacturing process by increasing the number of fabrication steps. See col. 1, lines 61-63 ("Since the color luminous layers are separately formed by successively performing different steps, the number of fabrication steps is increased"). Yoneda proposes to solve this problem by replacing the red, green, and blue luminous layers 34 of the conventional structure of Fig. 1 with a luminous layer 34 that emits a single color (e.g., white light) and a color filter 22, as shown in Fig. 2. The color filter 22 enables a full color

display to be generated from the single color luminous layer 34. See col. 2, lines 56-64.

According to Yoneda, replacing the red, green, and blue luminous layers of the conventional structure with a single color luminous layer and a color filter “allows the fabrication process to be significantly simplified, compared with the conventional structure where three kinds of luminous materials are formed as a luminous layer in an organic EL element to emit three primary color rays.” See col. 5, lines 45-50.

Notably, Yoneda provides no description or suggestion that would have led a person of ordinary skill in the art to replace the single white light emission layer 43 of Terrada with red, green, and blue luminous layers, as suggested by the Examiner, such that the resulting structure includes both a color filter and red, green, and blue light emitting elements. At most, Yoneda might be said to raise the possibility that a conventional structure consisting of red, green, and blue luminous layers may be used to replace Terrada's color filter 35 and single white light emission layer 43. The resulting structure, however, would not have a color filter and, therefore, would not meet the recited limitation of forming the red, green, and blue light emitting elements at a front surface of a substrate and bonding a red color filter, a green color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate.

In fact, none of the cited art contemplates combining red, green, and blue light emitting elements with color filters. Yoneda uses color filters as a mechanism to enable replacement of the red, green, and blue luminous layers in a conventional full color EL display device with a single color luminous layer, thereby, decreasing the complexity of manufacturing the EL device. See col. 2, lines 56-64 of Yoneda. Terrada uses color filters in the exact same manner as that described by Yoneda - to enable a single color luminous layer to generate a full color display. Bando does not describe or suggest use of color filters at all. Thus, none of the cited art describes or suggests the above-recited feature.

For at least these reasons, applicants request reconsideration and withdrawal of the rejection of claim 9.

Independent claim 10 recites: “forming a thin film transistor and a light emitting element emitting red light, a light emitting element emitting green light and a light emitting element emitting blue light being electrically connected to the thin film transistor at a front surface of a substrate” and “bonding a red color filter adjacent to the light emitting element emitting red light, a green color filter adjacent to the light emitting element emitting green light and a blue color filter adjacent to the light emitting element emitting blue light at the polished back surface of the substrate.” For at least the same reasons described above with respect to claim 9, neither Terada, Bando, Yoneda, nor any proper combination of the three describes or suggests forming the recited red, green, and blue light emitting elements at a front surface of a substrate and bonding a red color filter, a green color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate.

Independent claims 11 and 12, along with their dependent claims 14 and 19, have been rejected as being unpatentable over Terada in view of Bando, Yoneda, King (U.S. Patent No. 4,963,788) and Lee (Article entitled “Lunar Building Materials – Some Considerations on the Use of Inorganic Polymers”).

Independent claim 11 recites: “forming a plurality of light emitting elements emitting red light, a plurality of light emitting elements emitting green light and a plurality of light emitting elements emitting blue light in a matrix form at a front surface of a first substrate” and “bonding a transparent substrate comprising at least a red colored layer adjacent to the light emitting element emitting red light, a green color filter adjacent to the light emitting element emitting green light and a blue color filter adjacent to the light emitting element emitting blue light at a back surface of the first substrate.” For at least the same reasons described above with respect to claim 9, neither Terada, Bando, Yoneda, nor any proper combination of the three describes or suggests forming the recited red, green, and blue light emitting elements at a front surface of a substrate and bonding a red colored layer, a green color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate. King and Lee are similarly

deficient. Accordingly, applicants request reconsideration and withdrawal of the rejection of claim 11 and its dependent claim 14.

Independent claim 12 recites: “forming a semiconductor element and a light emitting element emitting red light, a light emitting element emitting green light and a light emitting element emitting blue light being electrically connected to the semiconductor element at a front surface of a first substrate” and “bonding a transparent substrate comprising at least a red colored layer adjacent to the light emitting element emitting red light, a green color filter adjacent to the light emitting element emitting green light and a blue color filter adjacent to the light emitting element emitting blue light at a back surface of the first substrate.” For at least the same reasons described above with respect to claim 11, neither Terada, Bando, Yoneda, King, Lee, nor any proper combination of the five describes or suggests forming the recited red, green, and blue light emitting elements at a front surface of a substrate and bonding a red colored layer, a green color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate. Accordingly, applicants request reconsideration and withdrawal of the rejection of claim 12 and its dependent claim 19.

Independent claims 47 and 50, along with their dependent claims 48 and 51, have been rejected as being unpatentable over Terada in view of Bando, Yoneda, Matthies (U.S. Patent No. 6,476,783) and Lee, and over Terada in view of Bando, Yoneda, King and Lee.

Independent claim 47 recites: “forming a light emitting element emitting red light, a light emitting element emitting green light and a light emitting element emitting blue light at a front surface of a first substrate” and “bonding a transparent substrate comprising at least a red colored layer adjacent to the light emitting element emitting red light, a green color filter adjacent to the light emitting element emitting green light and a blue color filter adjacent to the light emitting element emitting blue light at a back surface of the first substrate.” For at least the same reasons described above with respect to claims 9-12, neither Terada, Bando, Yoneda, King, Lee, nor any proper combination of the five describes or suggests forming the recited red, green, and blue light emitting elements at a front surface of a substrate and bonding a red colored layer, a green

color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate. Matthies is similarly deficient. Accordingly, applicants request reconsideration and withdrawal of the rejection of claim 47 and its dependent claim 48.

Independent claim 50 recites: “forming a semiconductor element and a light emitting element emitting red light, a light emitting element emitting green light and a light emitting element emitting blue light being electrically connected to the semiconductor element at a front surface of a first substrate” and “bonding a transparent substrate comprising at least a red colored layer adjacent to the light emitting element emitting red light, a green color filter adjacent to the light emitting element emitting green light and a blue color filter adjacent to the light emitting element emitting blue light at a back surface of the first substrate.” For at least the same reasons described above with respect to claim 47, neither Terada, Bando, Yoneda, King, Lee, Matthies, nor any proper combination of the six describes or suggests forming the recited red, green, and blue light emitting elements at a front surface of a substrate and bonding a red colored layer, a green color filter, and a blue color filter adjacent to the red light emitting element, the green light emitting element, and the blue light emitting element, respectively, at a back surface of the same substrate. Accordingly, applicants request reconsideration and withdrawal of the rejection of claim 50 and its dependent claim 51.

Applicants submit that all claims are in condition for allowance.

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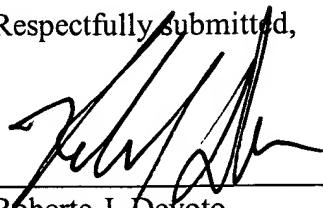
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Please apply the Petition for One-Month Extension of Time fee (\$120) and any other charges or credits to Deposit Account No. 06-1050.

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Respectfully submitted,



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